Masters in Economics

Programme Requirements

**Economics - MSc**

60 credits from Module List: EC5201 - EC5203 **and**
60 credits from Module List: EC5204-5227, EC5605, EC5606, EC5608 EC5610-EC5611, EC5722, EC4403, EC4407, EC4408, EC4411, EC4413-EC4414, EC4416, EC4425 **and**
EC5299 (60 credits)

Other 4000-level modules may be taken with the permission of the programme director.

A minimum of 100 credits must be in 5000-level modules.

**Compulsory modules:**

**EC5201 Macroeconomics**

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<td>Planned timetable:</td>
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The module will provide a thorough advanced treatment of the core models and concepts used in modern macroeconomics; for example the infinite horizon Ramsey model and finite horizon overlapping generations model and models that have been used to characterise short term fluctuations, such as the real business cycle approach and the New Keynesian approach. Among other things, the module will seek to explain the development of microbased macroeconomic theory, use models to predict the impact of policy changes on endogenous variables and critique modelling assumptions, especially in the context of policy analysis. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.

**Programme module type:** Compulsory for MSc in Economics
Either EC5201 or EC5202 is compulsory for MSc in Finance and Economics

**Anti-requisite(s):**
EC5801

**Learning and teaching methods and delivery:**
Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).

**Assessment pattern:**
3-hour Written Examination = 75%, Coursework = 25%

**Module coordinator:** Dr O Senay
### EC5202 Microeconomics

| SCOTCAT Credits: | 20 | SCQF Level: | 11 | Semester: | 1 |
|------------------|------------------|-------------|-------------|-------------|

Planned timetable: To be arranged.

This module will provide a thorough advanced treatment of the core models and concepts used in modern microeconomics. Microeconomic theory is concerned with the behaviour of individual economic actors (e.g. firms, consumers) and the aggregation of their actions in different institutional frameworks (e.g. markets), and models economic activity as an interaction of individual economic agents pursuing their private interests. Students will be presented with a set of concepts and mathematical techniques which will enable them to achieve a better understanding of economic activity and outcomes. This involves an understanding of how microeconomic models are built, focusing on their objective in terms of the phenomenon they are meant to explain, and the consequences of their assumptions in terms of the applicability of their predictions. Students are expected to have a strong undergraduate level training in macroeconomics, microeconomics and relevant mathematical and statistical techniques. Before commencement of the module, supplementary lectures will be given on the relevant mathematical methods.

Programme module type: Compulsory for MSc in Economics
Either EC5201 or EC5202 is compulsory for MSc in Finance and Economics

Learning and teaching methods and delivery: Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 10 weeks) plus 1 office hour (x 12 weeks).

Assessment pattern: 3-hour Written Examination = 75%, Coursework = 25%

Module coordinator: Dr K Ozbek

### EC5203 Econometric Methods and Applications

| SCOTCAT Credits: | 20 | SCQF Level: | 11 | Semester: | 1 |
|------------------|------------------|-------------|-------------|-------------|

Planned timetable: To be arranged.

This module will provide an advanced level training in aspects of econometric methods that is suitable for the basis for further work in econometrics and for understanding/being able to extract econometric techniques in published articles. The course will also give students the basis to support an empirical section in their MSc dissertation. Students are expected to have intermediate-level knowledge of matrix algebra, calculus and statistics. Before commencement of the module, supplementary lectures will be given on the relevant mathematical and statistical methods.

Programme module type: Compulsory for MSc in Economics and for MSc in Finance and Economics

Anti-requisite(s): EC5609 | Required for: EC5221

Learning and teaching methods and delivery: Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 8 weeks), 2-hour computing labs (x 2 weeks) plus 1 office hour (x 12 weeks)

Assessment pattern: 3-hour Written Examination = 50%, Coursework = 50%

Module coordinator: Dr I Merkurieva
EC5299 Dissertation in Economics

SCOTCAT Credits: 60  SCQF Level 11  Semester: Whole Year

Planned timetable: To be arranged.

This module provides students with the opportunity to undertake an in-depth investigation of a topic relevant and appropriate to the MSc. The dissertation takes the form of a substantially extended theoretical, analytical or empirical essay. The word limit for the dissertation is 15,000. The lecture part of the module will train students' skills in framing a research hypothesis, conducting bibliographic research, writing a literature survey, and structuring a research paper.

Programme module type: Compulsory for MSc in Economics.

Learning and teaching methods and delivery: Weekly contact: 5 lectures. Preparatory meeting and at least one supervisory meeting per month during the research period.

Assessment pattern: Dissertation = 100%

Module coordinator: Dr S Braun

Optional modules:

EC5220 Game Theory

SCOTCAT Credits: 20  SCQF Level 11  Semester: 2

Planned timetable: To be arranged.

This module will provide a thorough advanced treatment of the core models and concepts used in modern game theory. Many serious things in life are games. Game theory is a set of formal techniques used to study situations of strategic interaction. These are situations where the reward obtained by each member of a group (e.g. firms, political parties, students) depends not only on the decision made by that member, but also on the decisions made by everybody else; and, in addition, everybody is aware of this interdependence. The methods of game theory are widely used in contemporary economics. An acquaintance with them is essential to the accomplished economist. In fact, game theory provides a unified language to address a spectrum of problems which is not limited to economics. Topics covered will include: strategic games; mixed strategy equilibria; extensive form games (with perfect information); bargaining games; repeated games; games of incomplete information; implementation theory; and bounded rationality. Students are expected to have a strong undergraduate level training in microeconomics and relevant mathematical and statistical techniques.

Programme module type: Optional for MSc in Economics, MSc in Finance and Economics, and MSc in Money, Banking and Finance.

Learning and teaching methods and delivery: Weekly contact: 2 lectures, occasional tutorials.

Assessment pattern: 3-hour Written Examination = 75%, Coursework = 25%

Module coordinator: Dr L Bridet
### EC5221 Econometric Time Series Analysis

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This module will provide a thorough advanced treatment of the core theory and practice of time series econometrics. It examines the models and statistical techniques used to study time series data in economics. The first objective is to lay out the econometric theory of time series analysis and the second is to equip students who will use time series data or methods in their future Ph.D. research with some of the tools they will need. Students are expected to have intermediate-level knowledge of matrix algebra, calculus and statistics.

**Programme module type:** Optional for MSc in Economics, MSc in Finance and Economics, MSc in Money, Banking and Finance.

**Pre-requisite(s):** EC5203

**Learning and teaching methods and delivery:** Weekly contact: 2 lectures, occasional tutorials.

**Assessment pattern:** 3-hour Written Examination = 75%, Coursework = 25%

**Module coordinator:** Prof R McCrorie

**Module teaching staff:** Prof R McCrorie, Dr K Petrova

### EC5225 Experimental Economics and Finance

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This module will start by exposing students to the methodology of experimental economics and finance. It will then review stylised facts and recent developments of its use to address various research questions in economics and finance. The rise of the use of experimental methods in economics and finance has created a useful dialogue between theoretical and laboratory-based empirical work. Typically, this process occurs as follows: experimental economists use human participants to test the behavioural implications of theoretical models in the laboratory; the new empirical evidence collected in the laboratory then suggests new venues for the development of novel theoretical models. This cycle then repeats itself. In this module we will sometimes consider such interplay between the development of theoretical models and the collection of empirical evidence in the laboratory.

**Programme module type:** Optional for MSc in Economics, MSc in Finance and Economics, MSc in Money, Banking and Finance.

**Pre-requisite(s):** Admission to MSc Economics or a strong undergraduate training in microeconomics and relevant mathematical and statistical techniques.

**Learning and teaching methods and delivery:** Weekly contact: 2 lectures, occasional tutorials.

**Assessment pattern:** 3-hour Written Examination = 75%, Coursework (1,500-word Technical Essay) = 25%

**Module coordinator:** Prof M Costa-Gomes
Traditionally, Financial Economics assumes that investors and other market participants are perfectly rational. While this is a good first approximation, we currently know there are a number of systematic biases in people's behaviour. The goal of this module is to discuss how these biases affect financial markets and investors' decisions. We will start with describing the most relevant deviations (such as overconfidence, representativeness and others), and we will continue with various financial applications. We will talk about bubbles, herding, and implications for corporate decisions and investors' behaviour.

**Programme module type:** Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.

**Learning and teaching methods and delivery:** Weekly contact: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 office hour (x 12 weeks)

**Assessment pattern:** 2-hour Written Examination = 50%, Coursework (incl Class Test, 25%) = 50%

**Module coordinator:** Dr M C Iannino

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This module will cover key issues in monetary policy. Topics will include: the case for price stability; time inconsistency and policy; the trade-off between inflation bias and output stabilisation; unconventional monetary policies; inflation targeting and other monetary frameworks; and the conduct of monetary policy in leading countries.

**Programme module type:** Compulsory for MSc in Money, Banking and Finance. Optional for MSc in Economics, and MSc in Finance and Economics.

**Learning and teaching methods and delivery:** Weekly contact: 2 lectures, tutorial (fortnightly)

**Assessment pattern:** 2-hour Written Examination = 50%, Coursework = 50%

**Module coordinator:** Dr K Ozhan

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Three key components: (1) corporate governance; (2) risk management; and (3) financial management. Detailed content may vary year by year, but typically would include: mergers, takeovers, corporate control, governance, financial architecture, risk capital; risk in corporate and international settings; market consequences of managerial behaviour; corporate governance in family firms; financial distress and bankruptcy resolution.

**Programme module type:** Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics, and MSc in Money, Banking and Finance.

**Pre-requisite(s):** EC5601

**Learning and teaching methods and delivery:** Weekly contact: 2 lectures, 1 tutorial.

**Assessment pattern:** 2-hour Written Examination = 50%, Coursework = 50%

**Module coordinator:** Dr M La Manna
### EC5608 Financial Intermediation

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**Planned timetable:** To be arranged.

This module will cover the main theoretical issues involved in financial intermediation, from the existence of banks through credit rationing and optimal contracts to bank runs, central banks and regulation. The module will concentrate on analytical models, but there will be some reference to current issues in existing financial systems.

**Programme module type:** Compulsory for MSc in Money, Banking and Finance. Optional for MSc in Economics, MSc in Finance, and MSc in Finance and Economics.

**Learning and teaching methods and delivery:** Weekly contact: Lectures, tutorial (fortnightly).

**Assessment pattern:** 2-hour Written Examination = 50%, Coursework = 50%

**Module coordinator:** Dr K Ozhan

### EC5611 Portfolio Theory and Management

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**Planned timetable:** To be arranged.

This module aims to develop students' knowledge and understanding of key issues in asset allocation and portfolio composition/management at an advanced level. Moreover, it aims to provide students with the opportunity to develop their ability to critically understand current theoretical and empirical research in the field of portfolio management and the implications of such research into alternative portfolio composition and management strategies.

**Programme module type:** Optional for MSc in Economics, MSc in Finance and Economics, MSc in Finance and MSc in Money, Banking and Finance.

**Learning and teaching methods and delivery:** Weekly contact: 2 lectures, occasional tutorials.

**Assessment pattern:** 2-hour Written Examination = 70%, Coursework = 30%

**Module coordinator:** I Psaradellis

### EC5722 Risk Management

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**Planned timetable:** To be arranged.

This module provides the student with an introduction to standard techniques in risk and insurance. The implementation of sound quantitative risk models to assess and insure against risk is a vital concern for all financial institutions. The module provides a comprehensive treatment of the theoretical concepts and modelling techniques of quantitative risk management. It provides students with practical tools to solve real world problems, in the context of portfolio management and credit risk. A major theme underlying all topics is the importance of ambiguity, especially regarding partial knowledge of asset distributions and investor preferences. Throughout we will relate the class discussion to current economic conditions.

**Programme module type:** Optional for MSc in Economics, MSc in Finance, MSc in Finance and Economics and MSc in Money, Banking and Finance.

**Pre-requisite(s):** EC5601

**Learning and teaching methods and delivery:** Weekly contact: Lectures and tutorials.

**Assessment pattern:** 2-hour Written Examination = 50%, Coursework = 50%

**Module coordinator:** Dr M Zhang
EC4403 Health and Education

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<th>SCOTCAT Credits:</th>
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Planned timetable: To be arranged.

This module explores economic perspectives on health and education. After introducing human capital theory, we will use this lens to examine the decision to invest in schooling and review empirical estimates of the returns to education. We will also consider policy interventions to improve education. In the second part of the course we will study the demand and supply of health services, paying particular attention to the issues surrounding public and private health insurance. We will also discuss public intervention directed at health behaviours. The module will conclude by examining the joint production of health and education, with a focus on early childhood.

Programme module type: Optional for MSc in Finance and Economics, MSc in Economics

Learning and teaching methods and delivery: Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 15 weeks).

Assessment pattern: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%

Module coordinator: Dr M Leighton

EC4407 Behavioural Economics

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Planned timetable: To be arranged.

Behavioural economics combines traditional neoclassical microeconomics and empirically motivated assumptions with the goal of providing a better understanding of economic behaviour and welfare in settings that range from single-person decision problems under certainty, risk or uncertainty to multi-person decision problems. The module will introduce theoretical models that deviate from the standard assumptions of rational choice in order to explain observed behavioural patterns that arise both in single-period as well as in multi-period decision problems. When relevant, policy implications/responses will also be discussed.

Programme module type: Optional for MSc in Economics and MSc in Finance and Economics

Anti-requisite(s): EC4507, EC4607

Learning and teaching methods and delivery: Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).

Assessment pattern: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%

Module coordinator: Dr G Gerasimou

EC4413 European Macroeconomics

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Planned timetable: To be arranged.

The purpose of the module is to explore the macroeconomic and monetary issues involved in European economic integration. After a historical introduction focused on the question of why the members of the EC/EU have sought a single market for trade and then monetary union, the module provides a thorough examination of the theory of optimum currency areas, including trade and capital market linkages; convergence; and the role of exchange rate stability (real or nominal) from a European perspective. We then investigate the monetary policy strategy of the ECB; the need for and use of fiscal policy in a currency union; the Stability Pact; fiscal federalism; the relationship between fiscal and monetary policy; and the desirability of fiscal rules to ensure financial sustainability. Finally, we will examine labour market difficulties and structural reform in the EU.

Programme module type: Optional for MSc in Economics and MSc in Finance and Economics

Anti-requisite(s): EC4613, EC4513

Learning and teaching methods and delivery: Weekly contact: 20 hours of lectures over 10 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).

Assessment pattern: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%

Module coordinator: Prof A Sutherland
### EC4416 Innovation Economics

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Innovation is both a major contributory factor in economic growth and a crucial element of competitive behaviour and policy. The aim of this module is to introduce students to recent developments in the economic theory of innovation. The module, which is analytical in nature, examines the incentives firms have to innovate by the introduction of new products and new processes and, in particular, how this is affected by strategic competitive conditions.

- **Programme module type**: Optional for MSc in Economics and MSc in Finance and Economics
- **Anti-requisite(s)**: EC4503, EC4616
- **Learning and teaching methods and delivery**: Weekly contact: 20 hours of lectures over 11 weeks, 1-hour tutorial (x 5 weeks) plus 1 office hour (x 12 weeks).
- **Assessment pattern**: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
- **Module coordinator**: Dr M La Manna

### EC4425 Econometrics of Impact Evaluation

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Evaluating the causal effects of economic policies is an important but complex and challenging task. The purpose of this module is to introduce students to the core methods for evaluating the causal effect of economic policies and to apply these methods in practice. It will expose students to the concept of causality and explain under which assumptions the causal effect of economic policies can be identified. The module will have a strong focus on applications and will emphasise problems that economists encounter in practice when evaluating economic policies. Empirical examples will deal mainly with policies in labour economics and development economics. The laboratory sessions will discuss important empirical studies in the field and will provide students with the opportunity to apply empirical methods hands-on using Stata.

- **Programme module type**: Optional for MSc in Economics, and MSc in Finance and Economics
- **Pre-requisite(s)**: EC5203
- **Learning and teaching methods and delivery**: Weekly contact: 20 hours of lectures over 11 weeks, 1-hour laboratories (x 5 weeks) plus 1 optional office hour (x 12 weeks)
- **Assessment pattern**: 2-hour Written Examination = 50%, Coursework (incl. Class Test 25%) = 50%
- **Module coordinator**: Dr S Braun